

CLAIMS

What is claimed is:

1 1. A system for suppressing radio frequency radiation, comprising:
2 a ferrite material inductively coupled to a signal carrier, the signal carrier
3 having current at a first frequency and a second frequency;
4 means for reducing saturation of the ferrite material at the first frequency,
5 thereby allowing the ferrite material to suppress current at the second frequency,
6 where the second frequency is higher than the first frequency.

1 2. The system of claim 1, wherein the means for reducing saturation
2 further comprises means for varying the inductance of the signal carrier.

1 3. The system of claim 2, wherein the inductance varying means is
2 mechanical.

1 4. The system of claim 2, wherein the inductance varying means is
2 electro-mechanical.

1 5. The system of claim 2, wherein the inductance varying means is an
2 electronic control signal.

1 6. The system of claim 1, wherein the means for reducing saturation
2 further comprises means for inductively coupling the signal carrier to a means for
3 varying the resistance of the signal carrier.

1 7. The system of claim 6, wherein the resistance varying means
2 comprises a mechanically variable resistor.

1 8. The system of claim 6, wherein the resistance varying means
2 comprises an electro-mechanically variable resistor.

1 9. The system of claim 6, wherein the resistance varying means
2 comprises a variable resistor controlled by an electronic circuit.

1 10. The system of claim 1, wherein means for reducing saturation reduces
2 the current in the signal carrier at the first frequency.

1 11. A method for suppressing radio frequency radiation, comprising:
2 inductively coupling a ferrite material to a signal carrier, the signal carrier
3 having current at a first frequency and a second frequency;
4 reducing saturation of the ferrite material at the first frequency, thereby
5 allowing the ferrite material to suppress current at the second frequency, where the
6 second frequency is higher than the first frequency.

1 12. The method of claim 11, further comprising varying the inductance of
2 the signal carrier.

1 13. The method of claim 12, further comprising mechanically varying the
2 inductance of the signal carrier.

1 14. The method of claim 12, further comprising electro-mechanically
2 varying the inductance of the signal carrier.

1 15. The method of claim 12, further comprising electronically varying the
2 inductance of the signal carrier.

1 16. The method of claim 11, further comprising inductively coupling the
2 signal carrier to a variable resistance.

1 17. The method of claim 16, further comprising mechanically varying the
2 resistance to adjust the inductance of the signal carrier.

1 18. The method of claim 16, further comprising electro-mechanically
2 varying the resistance to adjust the inductance of the signal carrier.

1 19. The method of claim 16, further comprising electronically varying the
2 resistance to adjust the inductance of the signal carrier.

1 20. The method of claim 11, wherein reducing saturation of the ferrite
2 material reduces the current in the signal carrier at the first frequency.

1 21. A variable filter for suppressing radio frequency emission, comprising:
2 a ferrite material inductively coupled to a signal carrier, the signal carrier
3 having current at a first frequency and a second frequency, wherein the signal carrier
4 has a variable inductance for adjusting the electrical characteristics of the signal
5 carrier for reducing saturation of the ferrite material at the first frequency, thereby
6 allowing the ferrite material to suppress current at the second frequency, where the
7 second frequency is higher than the first frequency.

1 22. The filter of claim 21, further comprising an adjustable resistance
2 inductively coupled to the signal carrier, the adjustable resistance configured to vary
3 the electrical characteristics of the signal carrier.

1 23. The system of claim 21, wherein the variable inductance reduces the
2 current in the signal conductor at the first frequency.